IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Appolonius Jacobus Van Der Wiel

Application No.: 10/551,514

Filed: June 16, 2006

For: CALORIMETRIC FLOW METER

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Art Unit: 2812

REQUEST FOR CORRECTED PATENT

Unassigned

APPLICATION PUBLICATION AND SECOND REQUEST FOR CORRECTED FILING

RECEIPT

Examiner:

Attached is a copy of the Patent Application Publication (page 1) and the Corrected Filing Receipt received from the Patent and Trademark Office in the above-noted application for which issuance of a Corrected Patent Application Publication and a second Corrected Filing Receipt is respectfully requested.

On both documents, an error appears in the inventor's name. The inventor's name should read Appolonius H. Jacobus Van Der Wiel. In addition, an error appears in the domestic priority claim for this application. On the Corrected Filing Receipt the domestic priority claim should be corrected to read This application is a 371 of PCT/IB04/001012 04/02/2004. On the Patent Application Publication (86) PCT No.: should read PCT/IB04/001012. All other documents filed in this matter, i.e., Transmittal form, Application Data Sheet (ADS) and Preliminary Amendment reflect the correct domestic priority claim. Attached is a copy of the Patent Application Publication (page 1) and the Corrected Filing Receipt marked with the requested corrections. Also enclosed is a copy of the originally filed Request for Corrected Filing Receipt.

Applicant's believe there are no fees due in connection with this Request. However, the Office is hereby authorized to charge any fees associated with this Request to Deposit Account 20-1430.

Respectfully submitted,

Sould T. Stray Reg. No. 41,797

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834 Tel: (415) 576-0200 / Fax: (415) 576-0300

GTG/cjg 60963367 v1

ATTACHMENTS



(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2006/0234414 A1

Van Der Wiel

(43) Pub. Date:

Oct. 19, 2006

(54) CALORIMETRIC FLOW METER

(75) Inventor: Apolonius Jacobus Van Der Wiel, Tervuren (BE)

> Correspondence Address: TOWNSEND AND TOWNSEND AND CREW, TWO EMBARCADERO CENTER **EIGHTH FLOOR** SAN FRANCISCO, CA 94111-3834 (US)

Assignee: Melexis NV, Ieper (BE)

Appl. No.: 10/551,514

PCT Filed: Apr. 2, 2004

PCT No.: PCT/IB04/01012

(30)Foreign Application Priority Data

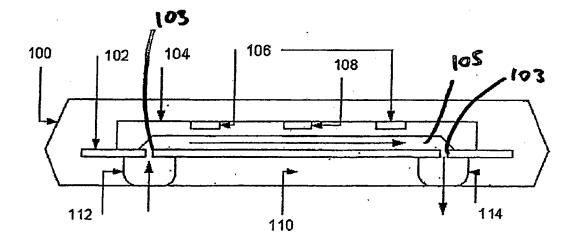
Apr. 3, 2003 (GB) 0307616.3

Publication Classification

(51) Int. Cl. H01L 21/00 (2006.01)

(57)**ABSTRACT**

An encapsulated calorimetric flow meter according to the present invention comprises an integrated circuit (104) mounted on a lead frame (102). The integrated circuit has a channel (105) provided in its lower face, the channel being aligned with two holes (103) provided in the lead frame, the holes coinciding with the ends of the channel (105). There are further slots (111) in the lead frame (102) alongside the integrated circuit to thermally isolate it from the rest of the lead frame (102), which acts as a heat sink to keep the entry and exit fluid at ambient temperature. The flow meter is manufactured by mounting the integrated circuit (104) on to a suitable lead frame (102). The assembly of integrated circuit (104) and lead frame (102) is then inverted and blobs of gel (112, 114) are then deposited onto the lead frame (102) covering the holes (103). The assembly is then inserted into a mould (100) and encapsulated within a suitable mould compound. When the assembly is ejected from the mould cavity the gel can be removed and the holes (103) and the channel (105) exposed to facilitate fluid flow into, out of and along the channel (105).



JNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office Address COMMISSIONER FOR PATENTS P.O. Box 1450-1-1-1

undria, Virginia 22313-1450

12

IND CLMS

APPL NO.

FILING OR 371 (c) DATE

ART UNIT FIL FEE REC'D ATTY.DOCKET NO

DRAWINGS TOT CLMS

10/551.514 06/16/2006

2812

1030

016998-0041000

CONFIRMATION NO. 6087 CORRECTED FILING RECEIPT

OC000000021860596

20350 TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER **EIGHTH FLOOR** SAN FRANCISCO, CA 94111-3834

Date Mailed: 01/05/2007

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Appolonius Jacobus Van Der Wiel, Tervuren, BELGIUM;

Assignment For Published Patent Application

Melexis NV, leper, BELGIUM

Power of Attorney: The patent practitioners associated with Customer Number 20350.

Domestic Priority data as claimed by applicant

This application is a 371 of PCT/IB04/01012 04/02/2004

Foreign Applications

UNITED KINGDOM 0307616.3 04/03/2003

If Required, Foreign Filing License Granted: 07/12/2006

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/551.514**

Projected Publication Date: Not Applicable

Non-Publication Request: No

176

Early Publication Request: No

Title

Calorimetric flow meter

Preliminary Class

438

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process simplifies the filing of patent applications on the same invention in member countries, but does not result in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted

under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2006/0234414 A1 Van Der Wiel

(43) Pub. Date:

Oct. 19, 2006

(54) CALORIMETRIC FLOW METER

Appolonius H. Jacobus Van Der Wiel

Apolonius Jucobus Van Der Wiel, Inventor: Tervuren (BE)

> Correspondence Address: TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834 (US)

Assignee: Melexis NV, Ieper (BE)

(21) Appl. No.: 10/551,514

PCT Filed: PCT No.:

Foreign Application Priority Data (30)

(GB) 0307616.3 Apr. 3, 2003

Publication Classification

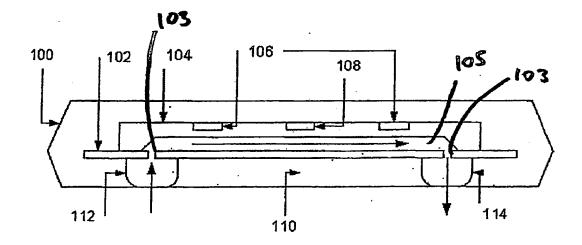
Int. Cl.

H01L 21/00 (2006.01)

U.S. Cl. 438/55; 438/25; 438/26

(57)ABSTRACT

An encapsulated calorimetric flow meter according to the present invention comprises an integrated circuit (104) mounted on a lead frame (102). The integrated circuit has a channel (105) provided in its lower face, the channel being aligned with two holes (103) provided in the lead frame, the holes coinciding with the ends of the channel (105). There are further slots (111) in the lead frame (102) alongside the integrated circuit to thermally isolate it from the rest of the lead frame (102), which acts as a heat sink to keep the entry and exit fluid at ambient temperature. The flow meter is manufactured by mounting the integrated circuit (104) on to a suitable lead frame (102). The assembly of integrated circuit (104) and lead frame (102) is then inverted and blobs of gel (112, 114) are then deposited onto the lead frame (102) covering the holes (103). The assembly is then inserted into a mould (100) and encapsulated within a suitable mould compound. When the assembly is ejected from the mould cavity the gel can be removed and the holes (103) and the channel (105) exposed to facilitate fluid flow into, out of and along the channel (105).



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE

APPL NO.

FILING OR 371 (c) DATE

ART UNIT FIL FEE REC'D ATTY.DOCKET NO

DRAWINGS TOT CLMS

IND CLMS

10/551,514

06/16/2006

2812

016998-0041000

1030

12

20350 TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER **EIGHTH FLOOR** SAN FRANCISCO, CA 94111-3834



Date Mailed: 01/05/2007

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER. FILING DATE. NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Appolonius H. Jacobus Van Der Wiel Applicant(s)

Appolonius Jacobus Van Der Wiel, Tervuren, BELGIUM;

Assignment For Published Patent Application

Melexis NV, leper, BELGIUM

Power of Attorney: The patent practitioners associated with Customer Number 20350.

Domestic Priority data as claimed by applicant fCT/IB04/go1013

This application is a 371 of PCT/IB04/01012 04/02/2004

Foreign Applications

UNITED KINGDOM 0307616.3 04/03/2003

If Required, Foreign Filing License Granted: 07/12/2006

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/551,514**

Projected Publication Date: Not Applicable

Non-Publication Request: No

1213

Early Publication Request: No

Title

Calorimetric flow meter

Preliminary Class

438

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted

under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

TRANSMITTAL FORM

Application Number	10/551,514	
Filing Date	September 29, 2005	
First Named Inventor	van der Wiel, Appolonius J.	
Art Unit	2812	
Examiner Name	Not Yet Assigned	
Attorney Docket Number	016998-004100US	

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission 1

ENCLOSURES (Check all that apply)												
	Fee Transmittal Form			Drawing(s)				After Allowance Communication to TC				
	Fe	Fee Attached			Licensing-related Papers					nmunication to Board and Interferences		
	Amendment/Reply			Petition				Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)				
After Final			Petition to Convert to a Provisional Application				Proprietary Information					
	Aff	Affidavits/declaration(s)			Power of Attorney, Revocation Change of Correspondence Address				Status Letter			
	Extension of Time Request				Termi	inal Disclaimer	claimer		Other Enclose below):	osure(s) (please identify		
	Express Abandonment Request			I I Request for Retund				1	Recordation Form Cover Sheet (1 pg) Request for Corrected Filing Receipt (1 pg)			
Information Disclosure Statement			CD, Number of CD(s)				Official filing receipt w/correction in red (1 pg)					
								Reque (2 pgs		cted Notice of Recordation	on	
				Landscape Table on CD Sup						S to correct entity status		
	Certified Copy of Priority Document(s)				Remarks The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.							
Reply to Missing Parts/ Incomplete Application Reply to Missing Parts under 37 CFR 1.52 or 1.53												
	···-·		SIGNA	TURE	OF A	PPLICANT, A	TTORNEY, O	OR AG	ENT			
Firm Name Townsend and Towns						·						
Signature And T. /h				ing/				_				
Printed name Gerald T. Gray				/								
Date October 23, 2006					Reg. No.	41,79	97					
			С	ERTIF	ICATI	E OF TRANSI	MISSION/MA	ILING				
I hei Offic	reby certify e on the d	y that this ate show	s corresponde n below.	ence is	being	g filed via EFS	-Web with th	e Unite	ed States I	Patent and Trademark	ς	
Signa	ature		Sylva	ar	wel	d						
Typed or printed name Sylvia E. Arno								Date	October 23, 2006			

Attorney Docket No.: 016998-004100US

October 23, 2006

TOWNSEND and TOWNSEND and CREW LLP

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Examiner:

Unassigned

Appolonius Jacobus Van Der Wiel

Art Unit:

2812

Application No.: 10/551,514

REQUEST FOR CORRECTED FILING

RECEIPT

Filed: June 16, 2006

For: CALORIMETRIC FLOW METER

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Attached is a copy of the Filing Receipt received from the Patent and Trademark Office in the above-noted application for which issuance of a corrected filing receipt is respectfully requested.

An error appears in the inventor's name Apolonius H. Jacobus Van Der Wiel is misspelled. The correct spelling of the inventor's name is Appolonius H. Jacobus Van Der Wiel. In addition, an error appears in the domestic priority claim for this application. The domestic priority claim should be corrected to read: This application is a 371 of PCT/IB04/001012 04/02/2004. All other documents filed in this matter, i.e., Transmittal form, Application Data Sheet (ADS) and Preliminary Amendment reflect the correct domestic priority claim. The requested corrections have also been noted in red ink on the copy of the official Filing Receipt.

Applicant's believe there are no fees due in connection with this Request. However, the Office is hereby authorized to charge any fees associated with this Request to Deposit Account 20-1430.

Respectfully submitted,

Should T. May

Gerald T. Gray Reg. No. 41,797

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834 Tel: (415) 576-0200 / Fax: (415) 576-0300 GTG/sea/dmd

60865378 v1

United States Patent and Trademark Office 🥢

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPL NO.

FILING OR 371 (c) DATE

ART UNIT FIL FEE REC'D

2812

ATTY DOCKET NO

DRAWINGS TOT CLMS

IND CLMS

10/551.514

20350

06/16/2006

1030

016998-004100US

2

CONFIRMATION NO. 6087

TOWNSEND AND TOWNSEND AND CREW, LLP

TWO EMBARCADERO CENTER

EIGHTH FLOOR

SAN FRANCISCO, CA 94111-3834

FILING RECEIPT

OC000000019579519

Date Mailed: 07/19/2006

12

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s) APPOLONIUS JACOBUS VAN DER WIEL

Apolonius Jacobus Van Der Wiel, Tervuren, BELGIUM;

Assignment For Published Patent Application

Melexis NV, leper, BELGIUM

Power of Attorney: The patent practitioners associated with Customer Number 20350.

Domestic Priority data as claimed by applicant

PET/1804/00/012

This application is a 371 of PCT/IB04/01012-04/02/2004

Foreign Applications

UNITED KINGDOM 0307616.3 04/03/2003

If Required, Foreign Filing License Granted: 07/12/2006

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/551,514**

Projected Publication Date: 10/19/2006

Non-Publication Request: No

Early Publication Request: No

THE